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EXAMINER

VUONG, QUOCHIE B

ART UNIT PAPER NUMBER

2685

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|------------------------------|--|
| Office Action Summary | Application No. 09/606,761 | Applicant(s) OGINO, TOORU | |
| | Examiner Quochien B Vuong | Art Unit 2685 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action in response to Applicant's response filed on 04/11/2005. Claims 1-24 are now pending in the present application. **This action is made final.**

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear how to "gradually increasing and decreasing one and another of reception levels of the first and second reception antenna during **a predetermined time interval** while measuring strength of received electric field from the first and second reception antenna during **the predetermined time interval**" as recited in independent claims 1 and 15.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 7-13, and 15-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris et al. (US 6,032,033) in view of Kenkel et al. (US 6,296,565).

Regarding claims 1 and 15, Morris et al. (figure 2) disclose a digital multiple reception apparatus and method comprising: first (100) and second (108) reception antenna; reception level control means (252), connected to the first and second reception antennas; measuring means (218) for measuring strength of a received electric field from the first and second reception antennas during a predetermined time interval and adding the measurement strength of the received electric field from the first reception antenna to produce a first accumulated amount and adding the measured strength of the received electric field from the second reception antenna to produce a second accumulated amount; and selecting means (110) for selecting, in response to the first and second accumulated amounts one of the first and second reception antennas (column 8, line 63 – column 9, line 39). Morris et al. do not specifically disclose reception level control means for gradually increasing one of reception levels in the first and the second reception antennas during a predetermined time interval and for gradually decreasing another of the reception levels during the predetermined time interval. However, Kenkel et al. (figures 1-2) disclose a digital multiple reception apparatus and method comprising: first (102) and second (104) reception antenna; reception level control means (106 and 108), connected to the first and second reception antennas, for gradually increasing one of reception levels in the first and the second reception antennas during a predetermined time interval and for gradually

Art Unit: 2685

decreasing another of the reception levels during the predetermined time interval (see column 1, line 65 – column 2, line 24; column 2, line 40 – column 4, line 6). Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to adapt the teaching of Kenkel et al. for gradually increasing and decreasing the reception level of the antennas to the apparatus and method of Morris et al. in order to avoid sudden phase shift that can produce unacceptable audio output noise spike as suggested by Kenkel et al. (column 2, lines 17-24).

Regarding claims 2 and 16, Morris et al. and Kenkel et al. disclose the apparatus and method of claim 1 and 15 above; in addition, Kenkel et al. disclose the reception level control means comprises: first attenuating means (106) for attenuating the reception level in the first reception antenna; and second attenuating means (108) for attenuating the reception level in the second reception antenna, the reception level control means gradually decreasing an attenuation amount in the first attenuating means and gradually increasing an attenuating amount in the second attenuating means (column 1, line 65 – column 2, line 16).

Regarding claim 7 and 17, Morris et al. and Kenkel et al. disclose the apparatus and method of claims 1 and 15 above, respectively; in addition, Morris et al. disclose the measuring means measures a first accumulated amount of the strength of the received electric field in a first half within the predetermined time interval and a second accumulated amount of the strength of the received electric field in a later half within the predetermined time interval, and the selecting means selecting one of the first and

second reception antennas in accordance with a comparison result between the first and second accumulated amounts (column 8, line 63 – column 9, line 39).

Regarding claims 8 and 18, Morris et al. and Kenekl et al. do not disclose the measuring means decreases a frequency of measurement when a current comparison result is identical with a previous comparison result. However, it would have been obvious for the measuring means of Kenkel et al. and Nakamura to decrease a frequency of measurement when a current comparison result is identical with a previous comparison result in order to save power when the condition is stable and not changing.

Regarding claims 9-13 and 19-23, Morris et al. and Kenkel et al. disclose the apparatus and method of claim 1 and 15 above, respectively. Morris et al. and Kenkel et al. do not specifically disclose the measuring means decreases a frequency of measurement when the digital multi reception apparatus is put into a reception wait state, located outside an area when an electric wave to be received reaches, accordance with a moving speed, low battery power supply, or in accordance with a value of strength of a received electric field. However, the differences do not involve any inventive ideas, since it would have been obvious for the measuring means of Morris et al. and Kenkel et al. to decrease a frequency of measurement when the digital multi reception apparatus is put into a reception wait state, located outside an area when an electric wave to be received reaches, accordance with a moving speed, low battery power supply, or in accordance with a value of strength of a received electric field in order to save power when the apparatus is not in the active state (wait state, out of area, low battery supply power, etc.).

4. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris et al. in view of Kenkel et al. and further in view of Niki (US 4,620,147).

Regarding claim 3, Morris et al. and Kenkel et al. disclose the apparatus of claim 2 above. Morris et al. and Kenkel et al. do not specifically disclose the first and second attenuating means are composed of a T-type attenuator including first through third variable attenuating elements having first through third attenuating amounts which vary in accordance with first through third control voltages supplied thereto. However, Niki disclose attenuator means composed of a T-type attenuator including first through third variable attenuating elements having first through third attenuating amounts which vary in accordance with first through third control voltages supplied (column 8, lines 12-21). Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to adapt the T-type attenuator including first through third variable attenuating elements having first through third attenuating amounts which vary in accordance with first through third control voltages supplied to the first and second attenuating means of Morris et al. and Kenkel et al. as one would like to select for serving the same function as to gradually control the attenuation of the received signal.

Regarding claim 4, Morris et al., Kenkel et al. and Niki disclose the apparatus of claim 3 above; in addition, Niki discloses the first through third variable attenuating elements comprise first through third pin diodes having anode electrode supplied with the first through third control voltages (column 8, lines 12-21).

Regarding claim 5, Morris et al., Kenkel et al. and Niki disclose the apparatus of claim 3 above; in addition, Kenkel et al. disclose memories for storing data

corresponding to the control voltages; and digital-to-analog converting sections for converting data read from the memories into analog signals, respectively, the analog signals being supplied to the first through third variable attenuating elements as the control voltages (P1 and P2) (figure 1, column 3, line 51 – column 4, line 44).

Regarding claim 6, Niki further discloses the first through third variable attenuating elements comprise first through third pin diodes having anode electrode supplied with the first through third control voltages (column 8, lines 12-21).

Allowable Subject Matter

5. Claims 14 and 24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Regarding claims 14 and 24, Morris et al. and Kenkel et al. disclose the apparatus and method of claims 13 and 23 above, respectively. However, Kenkel et al. fail to teach or suggest the measuring means shortens the predetermined time interval when a difference between the first and the second accumulated values is larger a predetermined value.

Response to Arguments

6. Applicant's arguments with respect to claims 1-8 and 15-18 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2685

Regarding claims 9-13 and 19-23, Examiner did not take Official notice; however one of ordinary skill in the art would decrease a frequency of measurement when the digital multi reception apparatus is put into a reception wait state, located outside an area when an electric wave to be received reaches, accordance with a moving speed, low battery power supply, or in accordance with a value of strength of a received electric field in order to save power when the apparatus is not in the active state (wait state, out of area, low battery supply power, etc.), because for example what is the point of measuring the signals and switching the antennas while the apparatus is not in service or out of reach.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2685

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B Vuong whose telephone number is (571) 272-7902. The examiner can normally be reached on M-F 9:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Quochien B. Vuong
June 23, 2005.



QUOCHIE B. VUONG
PRIMARY EXAMINER